AMSAT News Service Weekly Bulletins
Issue: ANS-277
Date: 2015-10-04
Sources: amsat-ans-2015-ans-277-weekly-hyperkitty-c5b9c5fb2d.txt,
amsat-ans-2015-ans-277-weekly-hyperkitty-fb0270e485.txt

AMSAT NEWS SERVICE
ANS-277
The AMSAT News Service bulletins are a free, weekly news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS publishes news related to Amateur Radio in Space including reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

The news feed on http://www.amsat.org publishes news of Amateur Radio in Space as soon as our volunteers can post it.

Please send any amateur satellite news or reports to:
ans-editor at amsat.org.

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SB SAT @ AMSAT $ANS-277.01
ANS-277 AMSAT News Service Weekly Bulletins

AMSAT News Service Bulletin 277.01
 >From AMSAT HQ KENSINGTON, MD.
DATE October 4, 2015
To All RADIO AMATEURS
BID: $ANS-277.01

Special Membership Offer for Fox-1A launch on October 8, 2015

AMSAT’s Fox-1A is set to launch as part of the GRACE (Government Rideshare Advanced Concepts Experiment) auxillary payload on the NROL-55 mission October
8, 2015 from Vandenburg AFB on an Atlas V vehicle. More details will be released when made available from our launch provider. NRO has released this factsheet about the mission:

http://www.amsat.org/wordpress/wp-content/uploads/2015/10/GRACE_CubeSat_
FactSheet.pdf

General information on Fox-1A is available in the downloadable AMSAT Fox
Operating Guide.
http://www.amsat.org/wordpress/wp-content/uploads/2015/05/FoxOperatingGuide_
May2015_Hi.pdf

FoxTelem software for decoding and submitting telemetry has been made
available for download at
http://www.amsat.org/?page_id=4532 .

As part of the preparations for the launch and activation of
this new satellite, AMSAT is making our “Getting Started With The Amateur
Satellites” book available for a limited time as a download with any
paid new
or renewal membership purchased via the AMSAT Store. This offer is only
available with purchases completed online, and for only a limited time. A
perennial favorite, Getting Started is updated every year with the latest
amateur satellite information, and is the premier primer of satellite
operation. The 132 page book is presented in PDF format, in full color, and
covers all aspects of making your first contacts on a ham radio satellite.

Please take advantage of this offer today by visiting the AMSAT store
http://store.amsat.org/catalog/
and selecting any membership option. While there, check out our other
items, including the M2 LEOpack antenna system, AMSAT shirts, hats, and
other
swag. Thank you, and see you soon on Fox-1A!

[ANS thanks Drew Glasbrenner, KO4MA, Vice-President Operations for the above
information]

NASA Sets Coverage Schedule for CubeSat Launch Events

NASA Press Release:
http://www.nasa.gov/press-release/nasa-sets-coverage-schedule-for-cubesat-
launch-events

Thirteen NASA and National Reconnaissance Office (NRO)-sponsored
CubeSats are
scheduled to launch aboard a United Launch Alliance Atlas V rocket Thursday,
Oct. 8, from Vandenberg Air Force Base in California. Prelaunch media
briefings
and launch commentary coverage will be carried live on NASA Television
and the
agency's website.

Four of the CubeSats are NASA-sponsored and nine are NRO-sponsored, one of
which was developed with NASA funding. All will be flown on the NRO's
Government Rideshare Advanced Concepts Experiment (GRACE), which is an
auxiliary payload aboard the NROL-55 mission.

The CubeSat developed with NASA funding will evaluate the ability to point a
small satellite accurately as it demonstrates data transfer by laser at
rates
of up to 200 Mb/s -- a factor of 100 increase over current high-end CubeSat
communications systems. The NASA-sponsored CubeSats will test new small

satellite control and communications systems, Earth observations, amateur radio
communications and an X-Band radio science transponder.

These CubeSats also include the first to be designed, built and operated by students in Alaska and the first from Native American tribal college students.

Small satellites, including CubeSats, are playing an increasingly larger role
in exploration, technology demonstration, scientific research and educational
investigations at NASA. These miniature satellites provide a low-cost platform
for NASA missions, including planetary space exploration; Earth observations;
fundamental Earth and space science; and developing precursor science instruments like cutting-edge laser communications, satellite-to-satellite communications and autonomous movement capabilities. They also allow an inexpensive means to engage students in all phases of satellite development, operation and exploitation through real-world, hands-on research and development experience on NASA-funded rideshare launch opportunities.

NASA will host two prelaunch briefings at Vandenberg on Wednesday, Oct. 7. The
first briefing will highlight the growing importance of CubeSats in exploration
and technology development and will begin at 1 p.m. EDT (10 a.m. PDT). The participants will be:

* Steve Jurczyk, associate administrator for Space Technology at NASA Headquarters
* Meagan Hubbell, deputy chief, CubeSat Program Office, National Reconnaissance Office
* Sherrie Zacharius, vice president, Technology and Laboratory Operations at
The Aerospace Corporation
* John Serafini, vice president, Allied Minds and CEO, BridgeSat and HawkEye
360
* Andrew Petro, Small Spacecraft Technology Program executive at NASA Headquarters
* Scott Higginbotham, Launch Services Program ELaNa-12 Mission manager at NASA’s Kennedy Space Center in Florida

The second briefing will discuss the five NASA-sponsored CubeSats. This briefing will begin at 2 p.m. EDT (11 a.m. PDT). The participants will be:

* Richard Welle, director, Microsatellite Systems department at The Aerospace Corporation
* Tim Olson, principal investigator for BisonSat, Salish Kootenai College,
Pablo, Montana
* Morgan Johnson, team lead for the ARC CubeSat, University of Alaska, Fairbanks
* Jerry Buxton, vice president, Engineering, for AMSAT Fox-1
* Courtney Duncan, principal investigator for LMRST-Sat, NASA's Jet Propulsion Laboratory, Pasadena, California

Panelists also will be available from noon to 1 p.m. PDT for one-on-one interviews. Slots are limited.

Media interested in participating in the briefings by telephone or to schedule

an interview must contact Joshua Buck at 202-358-1130 or jbuck(a)nasa.gov by 5 p.m. PDT, Tuesday, Oct. 6. Questions also can be submitted via Twitter during
the briefings using the hashtag
#askNASA.

Media may obtain access badges by contacting Capt. Selena Rodts, Vandenberg Air Force Base Public Affairs at 805-606-3595 or
selena.rodts.1(a)us.af.mil and
submitting the necessary information by noon PDT on Tuesday.

For information about NASA TV launch coverage, visit:
http://www.nasa.gov/nasatv

For more information about NASA CubeSats, visit:
http://www.nasa.gov/cubesats

[ANS thanks Joshua Buck, NASA Headquarters, Washington for the above information]

AMSAT-NA VP-Engineering on NASA TV Wednesday

AMSAT-NA VP-Engineering Jerry Buxton, N0JY will be on the panel at a NASA prelaunch briefing on Wednesday, October 7 at 1800 UT. The briefing will be shown live on NASA TV.

The amateur radio FM transponder CubeSat, AMSAT Fox-1A, will be among 13 CubeSats flying as secondary payloads on the NROL-55 mission which should launch on a United Launch Alliance Atlas V rocket on Thursday, October 8, from
Vandenberg Air Force Base in California.

NASA will be holding two briefings about the launch. The first on Wednesday, Oct. 7 at 1700 UT (1pm EDT) will highlight the growing importance of CubeSats
in exploration and technology development. The second at 1800 UT (2pm EDT) will
discuss five of the CubeSats.

Jerry Buxton, N0JY will on the panel in the 1800 UT briefing to talk about the
Fox mission and science, and answer questions.

Fox-1A is a 1-Unit CubeSat carrying an FM repeater that will allow simple ground stations using an HT and an “Arrow” or “Elk” type antenna to make contacts using the satellite.

Data Under Voice (DUV) is used to send 200 bps FSK telemetry data at the same
time as FM audio. This is achieved by making use of sub-audible frequencies below 200 Hz.

Information on the free Fox telemetry decoder software is at
http://amsat-uk.org/2015/09/23/fox-telemetry-decoder-software/

Read the Fox Operating Guide at
http://www.amsat.org/wordpress/wp-content/uploads/2015/05/FoxOperatingGuide_May2015_Hi.pdf

The launch is still listed as TBD, Thursday, October 8 - CubeSat Launch Coverage from Vandenberg Air Force Base, Calif. Watch the following website for updated coverage:
http://www.nasa.gov/multimedia/nasatv/schedule.html

Watch NASA TV at
http://www.nasa.gov/nasatv

[ANS thanks AMSAT and AMSAT-UK for the above information]

Volunteer Opportunity: Editor-in-Chief of the AMSAT Journal

AMSAT is searching for a volunteer to assume the position of editor-in-chief of the AMSAT Journal. You'll help develop article sources and using AMSAT provided software and templates compile the 32-page magazine for six issues per
year. Our publishing system is the Adobe InDesign CS6 package. This can be learned quickly by any computer literate ham. InDesign is MS-Word on steroids.

The editor-in-chief leads a team of assistant editors who locate articles and
establish contact with potential authors. All you need is an eye for articles
of interest to amateur radio in space. You'll compile input from AMSAT HQ, volunteer authors, and amateur radio news sources into articles for publication
in our semi-monthly magazine.

Contact Barry Baines, WD4ASW (wd4asw(a)amsat.org) for additional information.

[ANS thanks the AMSAT Office the above information]

ISS CubeSats set to deploy Monday, Oct 5

The European Space Agency (ESA) has announced that two Danish CubeSats carrying amateur radio payloads should be deployed from the International Space
Station (ISS) on Monday, October 5.

Originally launched to the ISS on August 19, 2015 the two CubeSats, AAUSat-5 and GomX-3, will be deployed from the ISS Japanese Kibo module airlock. An astronaut will manipulate the Kibo robotic arm to lift AAUSAT-5 from the airlock and place it in orbit.

Once deployed from the ISS the CubeSat will begin transmitting signals to Earth that can be picked up by anyone with common amateur radio equipment. The
frequencies to listen on are:

AAUSat-5 – 437.425 MHz with 30 WPM CW beacon every 3 minutes and 9600

bps GMSK
packet every 30 seconds

GomX-3 – 437.250 MHz with 1200-9600 bps GMSK data from a NanoCom AX100 using CSP protocol

In addition to the amateur radio payloads new radio technology being demonstrated by GomX-3 will support the tracking of civil aircraft and measuring telecom satellite signal quality. AAUSat-5 will demonstrate the tracking of ships on the open sea.

ESA article CubeSats set for Monday Release (with video)
http://www.esa.int/Our_Activities/Space_Engineering_Technology/ESA_CubeSats_set_for_Monday_release

ESA invites radio amateurs to listen for AAUSat-5 CubeSat
http://amsat-uk.org/2015/09/24/esa-listen-for-aausat-5/

[ANS thanks ESA and AMSAT-UK for the above information]

LQSat Launch Monday, October 5

onday, October 5 should see the launch of LQSat which was developed by researchers and students at the Changchun Institute of Optics, Fine Mechanics
and Physics (CIOMP) and carries an amateur radio payload.

The launch will take place from the Jiuquan Satellite Launch Center (JSLC) in
Inner Mongolia on a Chang Zheng 2D (CZ-2D) rocket.
LQSat is technology demonstrator 40x40x60 cm with a mass of 50 kg and carries
a 2 m resolution camera as the main payload.

The IARU coordinated downlink frequencies are
• 437.650 MHz at 0.5 watts (27 dBm) with either 25 WPM CW or 4800 bps MSK CSP
packet data
• 2404 MHz at 1 watt (30 dBm) using 1 Mbps QPSK

See
http://amsat-uk.org/2015/10/02/lqsat-launch/

[ANS thanks AMSAT-UK for the above information]

Beijing Launches Three More Amateur Radio Satellites

On September 25, 2015 at 01:41 UT Beijing launched three satellites with amateur radio payloads from the Jiuquan Satellite Launch Center (JSLC) in the
Gobi desert, Inner Mongolia. They were carried on a new launcher, Beijing’s first solid-fuel rocket Chang Zheng 11 (CZ-11), and deployed in a 470 x

485 km,
97.3 degree inclination Sun Synchronous Orbit (SSO).

This launch occurred just over 5 days after nine satellites carrying amateur radio payloads were launched by Beijing from the Taiyuan Satellite Launch Center (TSLC) in Shanxi on September 19 at 23:01 UT.

The satellites were developed by students at the Nanjing University of Aeronautics and Astronautics in collaboration with the Shanghai Engineering Center for Microsatellites (SECM).

The main goal of the mission is to experiment with Software Defined Radio (SDR) in space. The amateur radio payloads will be used for exchanging Telemetry, Tracking and Command (TT&C) information with the amateur radio ground control station. Information about the telemetry will be made publicly
available so that radio amateurs around the world may track and monitor the health of the satellites.

Other payloads include a video camera along with receivers for dual-band GPS/Beidou, Maritime Automatic Identification System (AIS) and Aeronautical Automatic Dependent Surveillance Broadcast (ADS-B).

Using MEMS based cold-gas micropropulsion it is planned to demonstrate formation flying by two of the CubeSats along with inter satellite communication using GAMALINK 2.4 GHz spread spectrum at 1 Mbps and the CubeSat
Space Protocol (CSP).

The TW-1A and TW-1B CubeSats are 2U (20x10x10cm) in size while TW-1C is 3U (30x10x10cm).

Michael Chen BD5RV reports the satellites have these downlinks in the 435-438
MHz ITU Amateur Satellite Service allocation:
• Tianwang-1A (TW-1A / SECM): Camera, 435.645 MHz GMSK 4800/9600 CSP TX interval 10s
• Tianwang-1B (TW-1B / NJUST-2): AIS, 437.645 MHz GMSK 4800/9600 CSP TX interval 20s
• Tianwang-1C (TC-1C / NJFA-1): ADS-B, 435.645 MHz GMSK 4800/9600 CSP TX interval 10s
Note: TW-1A and 1C use the same frequency.

On the same launch was the technology demonstration satellite Pujian-1 which has WiFi for intra-satellite communications.

Object identification from information supplied by Nico Janssen PA0DLO and Zhang Xuan BH4DBE:
TW-1A object 40928, 2015-051B
TW-1B object 40927, 2015-051C, (other IDs: TianWang 1B, NJUST-2)
TW-1C object 40926, 2015-051D
Pujian 1 object 40925, 2015-051A
Chang Zheng 11 (CZ-11) fourth stage object 40929, 2015-051E

Keplerian Two Line Elements (TLEs) ‘Keps’ for new satellites launched in past
30 days
http://celestrak.com/NORAD/elements/tle-new.txt

Shanghai Engineering Centre for Microsatellites
http://www.microsate.com/en/

GAMALINK in Space
http://tekevernews.blogspot.co.uk/2015/07/gamalink-in-space.html

IARU Satellite Frequency Coordination pages
http://amsat.org.uk/iaru/

Satellite tracking information
http://amsat-uk.org/beginners/satellite-tracking/

Adding new satellites to SatPC32, Gpredict and Nova
http://amsat-uk.org/2013/11/23/adding-new-satellites-to-satpc32/

[ANS thanks AMSAT-UK for the above information]

LAPAN-A2 FM and APRS Satellite Launched

The Indonesian amateur radio society ORARI report that on Monday, September 28, 2015 04:30 hours UT, the LAPAN-A2/ORARI satellite was launched from the Sriharikota Range (SHAR) of the Satish Dhawan Space Centre in India. Deployment took place 23 minutes later.

LAPAN-A2 is in a 650 km orbit with an inclination of 6 degrees. It takes about 110 minutes to orbit the Earth and should pass over Indonesia and other near equatorial locations 14 times a day.

The low inclination equatorial orbit means it will be receivable from about 30 degrees North to 30 degrees South. About a third of the world’s population, over 2.4 billion people, live within the coverage area of the satellite.

The ground station at the LAPAN Satellite Technology Centre in Rancabungur, Bogor has made contact with LAPAN-A2. There will now be a period of activation and testing of all the satellite systems and it is expected to be about a month before the amateur radio payload becomes available for general use.

The primary aims of the mission are Earth observation using an RGB camera and maritime traffic monitoring using AIS, both using frequencies outside the Amateur Satellite Service.

The IARU has coordinated these frequencies for LAPA-A2/ORARI:
• 437.425 MHz telemetry beacon
• 435.880 MHz FM uplink
• 145.880 MHz FM downlink (5 watts)
• 145.825 APRS digipeater (5 watts)

Please send reports to
yd1eee(a)gmail.com

Listen to a recording of the 437.425 MHz telemetry signal at
https://chirb.it/MrgLGy

Pre-launch Keps courtesy of Dirgantara Rahadian YE0EEE

YBSAT
1 99999U 00000 15270.20393519 .00010000 00000-0 10000-3 0 00011

2 99999 006.0383 028.8188 0001450 317.4897 243.6033 14.00000000000018

Keplerian Two Line Elements (TLEs) ‘Keps’ for new satellites launched in
past
30 days
http://celestrak.com/NORAD/elements/tle-new.txt

Adding new satellites to SatPC32, Gpredict and Nova
http://amsat-uk.org/2013/11/23/adding-new-satellites-to-satpc32/

Satellite tracking information
http://amsat-uk.org/beginners/satellite-tracking/

AMSAT-ID Facebook Group
https://www.facebook.com/groups/831872960241607/

Organisasi Amatir Radio Indonesia (ORARI) in Google English
http://tinyurl.com/IndonesiaORARI

LAPAN-A2 paper
http://www.researchgate.net/publication/259844289_Development_of_
Micro-satellite_Technology_at_the_Indonesian_National_Institute_of_Aeronautics_
and_Space_%28LAPAN%29

The IARU Region 3 Conference takes place in Bali, Indonesia, October
12-16, 2015
http://amsat-uk.org/2015/08/21/iaru-region-3-act-on-band-plan-satellite/

[ANS thanks AMSAT-UK for the above information]

September/October 2015 AMSAT Journal is at the Print Shop

The September/October 2015 AMSAT Journal is complete and has been sent to
the print shop. Watch for your issue arrive in a few weeks (sent 2nd class
mail).
In this issue you will find:

+ AMSAT Announcements
+ Apogee View by Barry Baines, WD4ASW
+ Amateur Radio, AMSAT and STEM events: a great partnership
  by Tom Schuessler, N5HYP
+ AMSAT Fox Presentation to Dallas Area Ham Clubs
  by Jonathan Brandenburg, KF5IDY
+ AMSAT Fox-1A: Concept to Launch, Contributions by the Fox-1A team:
  o The Fox-1A Story - Ready for Launch October
  o Some History: Introducing the Fox-1 Cubesat
  o Fox-1A Design + Build + Software = Engineering Prototype
  o Fox-1A Shake and Bake
  o Fox-1A Delivery and Integration
  o Congratulations to AMSAT's Fox-1 Team!
  o Fox-1A at Vandenberg AFB and Ready for Launch
  o Operating Tips When You Operate on Fox-1A
+ DopplerPSK: Doppler-Correction Software for NO-84's
  (PSAT) PSK31 Transponder by Andy Flowers, K0SM/2
+ ARISS-International Meeting Held in Tokyo, Japan
  by David Jordan, AA4KN
+ Implementation of the International Arms Export Control Act
  of 1976 by Elizabeth Garbee, KC0OTR

Thanks to all who contributed to this issue of the AMSAT Journal. As always please send your photos, articles, news about club activities, awards to k9jkm(a)amsat.org. The Journal's editorial team will be glad to help you get it published. We have an author's guide, "How to Write for the AMSAT Journal", posted at http://www.amsat.org/?page_id=1709

[ANS thanks the AMSAT Journal Editorial Team for the above information]

Online Registration for tne AMSAT Symposium Closes October 8th

Online reservations for the upcoming AMSAT Space Symposium close October 8th. After that, you will have to register at the October 16-18 meeting in Dayton, Ohio.

See http://www.amsat.org/?page_id=3667

[ANS thanks Martha at the AMSAT Office for the above information]

White House Office of Science and Technology Policy's Spring 2016 Policy Internship Program

The White House Office of Science and Technology Policy is seeking students for spring 2016 internships. The OSTP advises the President on the effects of science and technology on domestic and international affairs. The office serves as a source of scientific and technological analyses and judgment for the president with respect to major policies, plans and programs of the federal government.

Policy internships are open to interested students from all majors and programs, including law school programs. Applicants must be U.S. citizens who are enrolled, at least half-time, in an accredited college or university during the period of volunteer service. Students in undergraduate, graduate and professional programs in all fields are encouraged to apply.

While these positions are without compensation, the assignments provide educational enrichment, practical work experience and networking opportunities with other individuals in the science and technology policy arena.

Applications for spring 2016 internships are due Oct. 30, 2015.

For more information, visit http://www.whitehouse.gov/administration/eop/ostp/about/student.

If you have questions about this opportunity, please contact Rebecca Grimm at Rebecca_L_Grimm(a)ostp.eop.gov.

[ANS thanks the NASA Education Express Message -- Oct. 1, 2015 for the above information]

AMSAT Events

Information about AMSAT activities at other important events around the country. Examples of these events are radio club meetings where AMSAT Area Coordinators give presentations, demonstrations of working amateur satellites, and hamfests with an AMSAT presence (a table with AMSAT literature and merchandise, sometimes also with presentations, forums, and/or demonstrations).

*Friday, Saturday, and Sunday, October 16-18 2015, AMSAT Symposium in Dayton OH (Dayton Crown Plaza)

*Saturday, 7 November 2015 – Oro Valley Amateur Radio Club Hamfest in Marana AZ

*Saturday and Sunday, 7-8 November 2015 – Stone Mountain Hamfest and ARRL Georgia Section Convention in Lawrenceville GA

*Monday, 16 November 2015 – Tri-City Amateur Radio Association meeting in Goodyear AZ

*Saturday, 5 December 2015 – Superstition Superfest 2015 in Mesa AZ

[ANS thanks AMSAT-NA for the above information]

ARISS News

Successful Contacts

* A direct contact via 8N2F with students at Fukara Junior High School, Susono,
Japan, was successful Thu 2015-10-01 10:26:55 UTC 85 deg. Thirteen students were able to ask 17 questions of astronaut Kimiya Yui before the signal was lost.

Fukara Junior High School is located in the eastern part of Susono City in Shizuoka Prefecture. Susono faces magnificent Mt. Fuji to the northwest, and extends to the crater of Mt. Hakone in the east. We have an unbroken view from
the foot of Mt. Fuji to Suruga Bay.This school is a smaller school with only 147 students – 2 classes for each grade. The students are friendly and obedient
and the school is always full of activity. All of the students belong to a sports team – we have baseball, basketball, volleyball, tennis, and table tennis teams, so all of the students are involved in sports. Integrated activities are the focus of our educational philosophy. For example, we perform
a play each year called “The Canal of Life”, in which the students study about
local history and perform a play about the work left behind by our

forbearers –
an irrigation canal that was built in the area. Through this kind of
study, the
students develop many strong ties to their community as well as pride in
their
hometown. Also, all the students in the school analyze newspaper
articles each
morning to build awareness of current events around the world. They form
their
own thoughts and opinions about each article, and discuss their opinions
with
friends to further develop their thought process. This is how we are
promoting
the NIE program (Newspapers in Education). The opportunity to talk with
Mr. Yui
via wireless transmission is a valuable experience to the students. We
believe
that this activity will elevate the quality of our students.

A video file has been uploaded:
http://www.ariss.jp/fukara/8n2f.wmv

* A telebridge contact via LU1CGB with students at Nowogard Union Schools, Junior High School No. 2, Nowogard, Poland was successful Tue 2015-09-29 12:56:27 UTC 36 deg. Astronaut Kjell Lindgren, KO5MOS answered 14 questions for
students.

Nowogard Union Schools consists of two schools: Junior High School No 2
and II
High School. The school is situated in Nowogard in West Pomernia
Province. Our
students are 13-19 years old. II High School provides students mainly with
humanities, science and mathematics curriculum.

In December 2013 the schools joined the ARISS School Contacts project.
In 2004
the Nicolaus Copernicus School Amateur Radio called SP1KMK was established.
Since then our students have been keenly developing their radio ham
interests.
Students have taken part in astronomy and astronautics projects such as:
MiniSat (they sent their own experiments in near space via balloons
thanks to
Copernicus Project Foundation), EarthKam (pupils ordered images of Earth
taken
from the ISS). There was also an educational project called
“SUPERCOMPUTER” in
which our students gained some knowledge of the latest wireless networking
technologies.

Apart from the above projects, they have made numerous astronomical
observations and got involved in astrophotography. Moreover, we hosted some
members of Polish Amateur Astronomers Society who showed at the school the
largest amateur telescope called “SOWA”. Within the project, Nowogard Union
Schools started to cooperate with some institutes of higher education
such as
West Pomeranian University of Technology in Szczecin and University of
Szczecin. We also has established cooperation with NASA staff and
conducted a
video conference with a NASA astronauts’ trainer and a NASA flight engineer.
There have been some school trips to Air Force Base in Ewidwin and Dolna
Odra Power Station in Gryfino organized to expand students’
technological and

technical knowledge.

Upcoming Contacts

* A telebridge contact with students at Corpus Christi Catholic School, Chambersburg, PA, USA via LU1CGB is scheduled for Tue 2015-10-06 16:29:32 UTC
33 deg. The scheduled astronaut is Kjell Lindgren KO5MOS.

Audio from this contact will be fed into:
- EchoLink *AMSAT* (101377)
- IRLP Node 9010 Discovery Reflector
- Streaming Audio at:
https://sites.google.com/site/arissaudio/

Audio on Echolink and web stream is generally transmitted around 20 minutes prior to the contact taking place so that you can hear some of the preparation
that occurs. IRLP will begin just prior to the ground station call to the ISS.
Please note that due to control issues with Echolink and IRLP there are manual
breaks approximately every 2 minutes to prevent timeout of connected repeaters
and links. You may still time out depending on your local configuration.

Corpus Christi Catholic School is a K - 8 Roman Catholic Elementary School, located in Chambersburg, Pennsylvania. With an enrollment of 215 students and
17 full-time and 3 part-time faculty members, Corpus Christi School is committed to the pursuit of excellence in Catholic education. The school strives to be on the cutting edge of technology with Smartboards in every classroom, two computer labs, iPads, and Chromebooks. Students in the primary
grades participate in weekly swim lessons at the local YMCA. Intermediate grades place a strong emphasis on STEM related concepts and careers. Grades four through eight have background knowledge of NASA starting with Gemini and
continuing onto Mars. In 2013, three teachers were selected to be on the Reduced Gravity Flight through NASA Explorer Schools. This experience increased the entire students' awareness of space flight and experiments being
conducted in microgravity on the International Space Station. Middle school students are able to expand their curriculum by traveling to major cities such
as Pittsburgh, Washington DC, and Williamsburg, VA. Scores on standardized tests are above the national average. School pride runs deep with the students, faculty, staff and parents.

* A direct contact via 9M2RPN with students at Sekolah Kebangsaan Taman Tun Dr Ismail (1), Kuala Lumpur, Malaysia, is scheduled for Fri 2015-10-09 08:00:04 UTC 47 deg. The scheduled astronaut is Kjell Lindgren KO5MOS.

Our first ARISS contact was made in 2007 when, Malaysia's first Astronaut Shiekh Muzapher went on board the ISS. We made 5 direct contacts when, some 80
school children talked to him and asked questions. Since then it has become a
highly sought after yearly event which is tied up with the Prime Minister's Space Challenge Trophy. This year we will be making our 8th yearly contact. Since the schools do not have ground stations, they make use of Satellite Ground Station at the National Planetarium established in 1995 under the

call
sign of 9M2RPN. The schools are the nurseries to produce future
astronauts and
space scientists. The forthcoming contact in October 2015 provides the
hands
on experience and the seeding operation for tomorrow's space scientists.

Watch
http://www.ariss.org/upcoming-contacts.html
for information about upcoming contacts as they are scheduled.

[ANS thanks ARISS, and Charlie, AJ9N for the above information]

Satellite Shorts From All Over

Two Tenure-Track Faculty Positions Open at Cal Poly, Looking for Experience
with SmallSats

The Aerospace and Electrical Engineering Departments at California State
Polytechnic University at San Luis Obispo have 2 tenure-track faculty
positions
open. Each position is looking for experience with or that can directly be
applied to small satellites. A description of each position is listed
below. If
interested in either position, please visit www.calpolyjobs.org and use the
applicable requisition number for the position.

Micro-Satellite and Space Propulsion (Requisition # 103821): Review
Begin Date
December 1, 2015

The Aerospace Engineering Department at Cal Poly, San Luis Obispo, invites
applications for a full-time, academic year, tenure-track faculty
position at
the Assistant or Associate Professor rank beginning no later than Fall 2016.
Duties include teaching undergraduate and master's level courses,
developing an
externally funded research program in the area of micro-satellite space
propulsion, expanding the space propulsion curricula; collaborating with the
department’s ongoing CubeSat initiatives; and providing service to the
department, university, and community. Rank and salary is commensurate with
qualifications and experience.

The position requires individuals who have demonstrated ability to provide
undergraduate and graduate students with hands-on engineering education in a
multidisciplinary, systems-based environment. A Ph.D. in engineering, or
closely related field, is required. It is expected that the successful
candidate will work with faculty from the department and the college of
engineering to grow and sustain the department’s CubeSat initiative in
the area
of propulsion systems and related technologies including nonchemical
propulsion, advanced propulsion technologies, and supporting technologies.
Industry experience, especially in the area of CubeSat or other
micro-satellite
propulsion systems, and a commitment to working in a multidisciplinary and
collaborative setting are preferred.

Electrical Engineering and Aerospace Engineering Joint Position
(Requisition #
103796): Review Begin Date January 4, 2016

The Electrical Engineering Department and Aerospace Engineering
Department at
Cal Poly, San Luis Obispo, invite applications for a full-time, academic
year
tenure-track faculty position at the Assistant or Associate Professor
rank. The
projected start date is September 15, 2016. Duties include teaching
coursework
in Electrical Engineering and Aerospace Engineering, building a
collaborative
research program in the area of Satellite Communication and Mobile
Terrestrial
Communications, and service to the department, university, and community.
Desired areas of expertise include satellite electronics systems
including the
Cube Sat form factor, mobile terrestrial communication systems with a strong
hands-on orientation in working with students. Rank and salary are
commensurate with qualifications and experience. Candidates with research or
private industry experience are encouraged to apply.

[ANS thanks Ryan Nugent, CubeSat Program Cal Poly for the above information]

/EX

In addition to regular membership, AMSAT offers membership in the
President's Club. Members of the President's Club, as sustaining
donors to AMSAT Project Funds, will be eligible to receive addi-
tional benefits. Application forms are available from the AMSAT
Office.

Primary and secondary school students are eligible for membership
at one-half the standard yearly rate. Post-secondary school students
enrolled in at least half time status shall be eligible for the stu-
dent rate for a maximum of 6 post-secondary years in this status.
Contact Martha at the AMSAT Office for additional student membership
information.

73,
This week's ANS Editor,
Joe Spier, K6WAO
k6wao at amsat dot org